For example, the intermetallic compound dental amalgam may contain approximately 4.5 μg/g Cd in the metal–matrix alloy (Minoia et al. 2007). Two metals other than Cd—lead (Dye et al. 2002) and mercury (Trivedi and Talim 1973)—probably contribute to periodontitis.

In a study of 268 avulsed teeth analyzed by atomic absorption spectrometry, Alomary et al. (2006) reported that the levels of Cd in tooth specimens were significantly higher in samples with dental amalgam fillings than in teeth with no amalgam. These findings suggest that exposure to Cd released from dental alloy restorations may influence many aspects of mineralized hard tissue of teeth and their immediate surrounding periodontal tissues. Another potential source of Cd is a metal dental bridge in which a Cd-containing alloy has been used for soldering.

In rare cases, Cd-containing dental alloys may lead to systemic intoxication (Borowiak et al. 1990). Even in dental acrylic-based resin for removable dentures, Cd might be used as a pigment.

It is therefore plausible that the release of Cd from both metal and/or nonmetal dental materials (i.e., resin-based materials) into the oral cavity may contribute to periodontal disease among adults.

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We thank Guzzi et al. for their interest in our study on the association of environmental cadmium exposure and periodontal disease (Arora et al. 2009). There are a number of environmental sources of Cd in the U.S. population, with tobacco smoke being recognized as a major contributor (Paschal et al. 2000). In our study, we used creatinine-corrected urinary Cd concentrations to estimate long-term cumulative Cd exposure. This biomarker of Cd body burden encompasses an individual's exposure to Cd from all sources; if dental restorative materials are indeed a source of Cd, then their contribution would also have been captured in our study.

That dental amalgams are the major source of Cd body burden has been questioned (Koh and Koh 2007), and further study is needed to determine the relative contribution of dental restorative materials to Cd exposure in the U.S. population. It is well recognized that the composition of dental amalgams and metal alloys used in dental restorations varies with type of restorative material and with the processes and standards of manufacture (Powers and Sakaguchi 2006). It therefore remains unclear whether any possible release of Cd from dental restorations would contribute significantly to the risk of periodontal disease.

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Erratum

In the October 2009 article "Learning Curve: Putting Healthy School Principles into Practice" [Environ Health Perspect 117:A448–A453 (2009)], William Orr is quoted but never fully identified by name. Orr is executive director of the Collaborative for High Performance Schools. *EHP* regrets the omission.